

## ABSTRACT OF THE DISCLOSURE

At least one shift gate includes a stabilizing range for stabilizing an engagement between the engaging portion and the at least one shift gate. The system stops movement of the movable member by driving the actuator and determines a portion at the movable member as a shift gate reference position at a time when the movement of the movable member stops. The system moves the movable member by driving the actuator, stabilizes the engaging portion in the stabilizing range, and determines the stabilizing position of the engaging portion as a position of the at least one shift gate.